Abstract Submitted for the DFD11 Meeting of The American Physical Society

Physics of badminton shuttlecock. Part 2: Turn around BAPTISTE DARBOIS TEXIER, CAROLINE COHEN, DAVID QUE RE, CHRISTOPHE CLANET, LadHyX, Ecole Polytechnique — We study experimentally shuttlecocks dynamics. In this part we show how the shuttlecock shape is optimized for badminton play. The shuttlecock always flies the nose forehead. After the impact it has thus to return. Actually it returns, oscillates and then stabilizes. We try to understand these damping oscillations and draw an analogy with the dandelions achenes and parachutists.

Baptiste Darbois Texier LadHyX, Ecole Polytechnique

Date submitted: 11 Nov 2011 Electronic form version 1.4